

## WHAT IS CLAIMED IS:

1. A vibrating sensor comprising a cell fixed in a housing, the cell having a support member and a vibrating member connected to the support member and powered by an excitation circuit so as to be sensitive to the movements to which the sensor is subjected, the sensor including at least one thermal masking element independent of the excitation circuit and extending between the vibrating member and at least one wall of the housing.
2. A vibrating sensor according to claim 1, wherein the masking element is fixed to the housing while being spaced apart therefrom.
3. A vibrating sensor according to claim 2, wherein the masking element is carried by a link part.
4. A vibrating sensor according to claim 3, wherein the link part includes a portion of greater thickness.
5. A vibrating sensor according to claim 3, wherein the link part is made of a suitable material and presents a cross-section and a length that are adapted to control heating of the masking element by conduction.
6. A vibrating sensor according to claim 3, wherein the link part extends facing a portion of the cell adjacent to the vibrating member.
7. A vibrating sensor according to claim 2, wherein the face of the masking element facing towards the vibrating member carries a reflective layer.
8. A vibrating sensor according to claim 1, wherein the masking element is carried by the cell.

9. A vibrating sensor according to claim 1, wherein the masking element comprises a reflective layer applied to the vibrating element.
- 5 10. A vibrating sensor according to claim 9, wherein the reflecting layer also extends over a portion of the cell adjacent to the vibrating member.